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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/755,479

01/13/2004

Heinrich Lysen

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10/05/2004

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EXAMINER

COURSON, TANIA C

ART UNIT

PAPER NUMBER

2859

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/755,479

Applicant(s)

LYSEN, HEINRICH

Examiner

Tania C. Courson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/13,7/15,8/9 2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Oath/Declaration

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the foreign application for patent or inventor's certificate on which priority is claimed pursuant to 37 CFR 1.55, and any foreign application having a filing date before that of the application on which priority is claimed, by specifying the application number, country, day, month and year of its filing.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on January 15, 2003. It is noted, however, that applicant has not filed certified copies of the prior application as required by 35 U.S.C. 119(b).

Claim Objections

3. Claims 1 and 13 are objected to because of the following informalities:
 - a) claim 1, in line 12, "displacemetn" should read "displacement";
 - b) claim 13, in line 1, "the cutting edge" lacks antecedent basis, and;

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-9, 11-12, 14-21 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Holzl (US 5,026,998).

Holzl discloses in Figures 5-7, an alignment checking apparatus and process comprising:

With respect to claims 1-9, 11-12, 14-17:

- a) performing a first measurement in which the probe (18) is located at the first attachment area (Fig. 6) and the second attachment area on a peripheral surface of the body (Fig. 6), wherein the first attachment area is a first measurement position which is held stationary with respect to the peripheral surface of the body (Fig. 6) and wherein, in the second attachment area the probe is angularly displaced relative to the first attachment area into contact with the peripheral surface of the body (Fig. 6), detecting, during the angular displacement, the characteristic of the first angle and the second angle of rotation (column 5, lines 37-61), performing a second measurement in which the probe is attached with the first attachment area and the second attachment area on another part of the peripheral surface of the body offset in a peripheral direction from the area of the body of the first

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measurement (column 5, lines 37-61), wherein the first attachment area is held stationary with respect to the peripheral surface of the body and wherein in the second attachment area the probe is angularly displaced relative to the first attachment area into contact with the peripheral surface of the body (column 5, lines 37-61), detecting, during the angular displacement, the characteristic of the first angle and the second angle of rotation, performing a comparison of the characteristic of the first angle and second angle of rotation from the first measurement with the characteristic of the first angle and second angle of rotation from the second measurement, and determining the alignment of the body, as result of the comparison, with respect to the reference direction (column 5, lines 37-61);

- b) wherein the first axis is perpendicular to the second axis (Fig. 6);
- c) wherein the probe is aligned horizontally relative to the body (Fig. 6), the first axis and the second axis are positioned such that the first angle of rotation is the elevation angle and the second angle of rotation is the azimuth angle (Fig. 6);
- d) wherein, during the comparison of the first and the second measurement, either the first angle of rotation is plotted as a function of the second angle of rotation or the second angle of rotation is plotted as a function of the first angle of rotation, and the deviation of the alignment of the body from the reference direction is determined from the intersection point of the plotted curve of the first measurement with the corresponding plotted curve of the second measurement (column 5, lines 37-61);

- e) wherein one compensation function at a time is determined from the detected values of the first and the second measurement by curve matching such that the deviation of the alignment of the body from the reference direction is determined from the intersection point of the compensation functions (column 5, lines 37-61);
- f) wherein the first measurement and the second measurement is detected along the entire angular displacement of the second attachment area with respect to the first attachment area and wherein the angular displacement is at least degrees (column 5, lines 37-61);
- g) wherein, during the second measurement, the measurement probe moves from an initial position to an end position, and further, the initial position and end position of the probe during the second measurement is essentially parallel to a corresponding initial position and end position of the probe during the first measurement (column 5, lines 37-61);
- h) wherein during the first measurement and the second measurement, the probe is essentially aligned such that a connecting line between the first attachment area and the second attachment area is aligned essentially parallel with a lengthwise axis of the body (column 5, lines 37-61);
- i) wherein the second attachment area is in the form of a tip which is adapted to be manually pushed manually over the peripheral surface of the body and in contact with the peripheral surface of the body during the first measurement and second measurement (Fig. 6);

- j) wherein the second attachment area is in form of a knife edge (19) which is tangential, with respect to the swiveling motion, to the second attachment area relative to the first attachment area, and wherein the knife edge, during the first measurement and second measurement, is manually pushed over the peripheral surface of the body and in contact with the peripheral surface of the body (Fig. 6);
- k) wherein the knife edge is of a flat or a polygon shape (Fig. 6);
- l) further comprising detecting, utilizing a detector means (4), when the second attachment area is in contact with the peripheral surface of the body such that measured values are recorded for the characteristic of the first angle of rotation and the second angle of rotation (Fig. 6);
- m) wherein the detector means detects the pressure force of the second attachment area on the peripheral surface of the body (Fig. 6);
- n) wherein the detector means detects whether there is electrical contact imparted from the peripheral surface of the cylindrical body between the first attachment area and the second attachment area (Fig. 6);
- o) wherein the axis of the angular displacement motion in the first measurement and the axis of the angular displacement motion in the second measurement are essentially parallel to one another (Fig. 6).

With respect to claims 18-21 and 23:

- a) a position measurement probe (18) adapted to be calibrated relative to the reference direction and to detect a first angle of rotation of the probe around a first

axis which is fixed in space and to detect a second angle of rotation of the probe around a second axis which is fixed in space (Fig. 6), the probe including a first attachment area and a second attachment area for positioning of the probe on a peripheral surface of the body (Fig. 6); and an evaluation unit (4), wherein the position measurement probe is adapted to be movable after a first measurement from a first measurement position to a second measurement position displaced from the first measurement position for performing a second measurement (column 5, lines 37-61), wherein the first attachment area is adapted to be fixedly attached to the peripheral surface of the body during each measurement (Fig. 6), while the second attachment area is adapted to be angularly displaced in contact with the peripheral surface of the body with respect to the first attachment area (Fig. 6), and wherein the evaluation unit is adapted, during the first and the second measurement, to detect a characteristic of the first angle of rotation and the second angle of rotation during each measurement, perform a comparison of the characteristic of the first angle and second angle of rotation from the first measurement with characteristic of the first angle and second angle of rotation from the second measurement, and determine the alignment of the body with respect to the reference direction (column 5, lines 37-61);

- b) wherein the first attachment area has a foot that is detachably mountable on the peripheral surface of the body and can be swung with respect to the probe around two axes which are perpendicular to one another (Fig. 6);

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- c) wherein a first axis of the two axes of the foot is perpendicular to the peripheral surface of the body and a second axis of the two axes of the foot is perpendicular to a connecting line between the first attachment area and the second attachment area (column 5, lines 37-61);
- d) wherein the alignment of the first axis of the foot is variable with respect to the foot such that the first axis is essentially fixed in space and is parallel to the second axis which is also fixed in space regardless of the position of the foot on the peripheral surface of the body (column 5, lines 37-61);
- e) wherein the probe includes a mechanical or optical gyroscope for each axis of angle of rotation (18 and column 5, lines 59-61).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 10, 13 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holzl in view of Wick (US 6,580,519 B1).

Holzl discloses an alignment checking apparatus and process, as stated above in paragraph 5.

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Holzl does not disclose wherein a second attachment area is in the form of a wheel, wherein the cutting edge is curved in either a circular or circular arc shape and wherein a foot comprises a magnet.

With respect to claims 10 and 13: the shape of the second attachment area, i.e., wheel, circular or circular arc shape, absent any criticality, are only considered to be obvious modifications of the shape of the second attachment area (Fig. 6) disclosed by Holzl as the courts have held that a change in shape or configuration, without any criticality, is within the level of skill in the art as the particular shape claimed by Applicant is nothing more than one of numerous shapes that a person having ordinary skill in the art will find obvious to provide using routine experimentation based on its suitability for the intended use of the invention. See *In re Dailey*, 149 USPQ 47 (CCPA 1976). Therefore, one skilled in the art would change the shape of the second attachment area in order to suit the needs of the user of the device.

Wick teaches an alignment device that consists of wherein a foot comprises a magnet (92). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the alignment checking apparatus and process of Holzl, so as to include a foot comprising a magnet, as taught by Wick, so as to provide a greater enhancement in attachment of the device during use of the device.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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The prior art cited on PTO-892 and not mentioned above disclose an alignment device:

Lysen et al. (US 6,784,986 B2)

Lysen (US 6,763,597 B2)

Hermann (US 6,434,849 B1)

Lysen (US 6,195,615 B1)

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tania C. Courson whose telephone number is (571) 272-2239.

The examiner can normally be reached on Monday-Friday from 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez, can be reached on (571) 272-2245.

The fax number for this Organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DIEGO F.F. GUTIERREZ
SUPERVISORY PATENT EXAMINER
GROUP ART UNIT 2859

TCC
September 29, 2004